portion of said first side so that said integrated circuit device is within said internal cavity; and

an epoxy encapsulant material filling a substantial portion of said internal cavity, and said epoxy encapsulant material being in contact with both said integrated circuit device and said top portion of said metal cap,

wherein said metal cap is constructed from a material selected from one of copper, aluminum, or alloys thereof.

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6. (Unamended) A ball-grid array package comprising:

a substrate having first and second sides;

a metal heat slug attached to said first side of said substrate, said metal heat slug having a die attach pad portion, at least one wirebond pad window portion, and peripheral rim portions;

an integrated circuit device attached to said die attach pad portion of said metal heat slug;

a metal cap having a side wall portion and a top portion forming an internal cavity, wherein said metal cap is attached to said metal heat slug along said peripheral rim portions so that said integrated circuit device is within said internal cavity; and

an epoxy encapsulant material filling a substantial portion of said internal cavity, said epoxy encapsulant material being in contact with both said integrated circuit device and said top portion of said metal cap.

7. (Unamended) A ball-grid array package according to claim 6, further comprising:

a retainer ring attached to said metal heat slug within said internal cavity.

8. (Unamended) A ball-grid array electronic package according to claim 6, wherein said metal cap has at least one hole in its top portion.

9. (Unamended) A ball-grid array package according to claim 6, wherein thermally conductive particles are dispersed in said epoxy encapsulant material, thereby enhancing the thermal conductivity of said epoxy encapsulant.

10. (Unamended) A ball-grid array package according to claim 9, wherein said thermally conductive particles are made from a material selected from one of diamond, cubic boron nitride or an oxide such as alumina.

11. (Unamended) A ball-grid array package according to claim 1, wherein said metal cap is constructed from a material selected from one of copper, aluminum, or alloys thereof.